

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows.

1. (Previously Presented) A gallium nitride (GaN)-based compound semiconductor device, comprising:
 - a GaN-based light emitting member; and
 - a buffer layer adjacent to the light emitting member,wherein the light emitting member comprises a multilayer quantum well structure including an InGaN well layer and an AlInGaN barrier layer.
2. (Previously Presented) The GaN-based compound semiconductor device according to claim 1, wherein a compositional ratio of In in the InGaN well layer is 5% or greater and 15% or smaller.
3. (Previously Presented) The GaN-based compound semiconductor device according to claim 1, wherein a compositional ratio of In in the InGaN well layer is 5% or greater and 13% or smaller.
4. (Currently Amended) [[A]] The gallium nitride (GaN)-based compound semiconductor device according to claim 1, comprising:
 - a GaN-based light emitting member,
 - ~~wherein the light emitting member comprises a multilayer quantum well structure including an InGaN well layer and an AlInGaN barrier layer, and~~
 - wherein a thickness of the InGaN well layer is 1 nm or greater and 2 nm or smaller.
5. (Previously Presented) The GaN-based compound semiconductor device according to claim 4, wherein the thickness of the InGaN well layer is between 1.3 nm and 1.8 nm.
6. (Currently Amended) [[A]] The gallium nitride (GaN)-based compound semiconductor device according to claim 1, comprising:
 - a GaN-based light emitting member,
 - ~~wherein the light emitting member comprises a multilayer quantum well structure including an InGaN well layer and an AlInGaN barrier layer, and~~

wherein a compositional ratio of Al in the AlInGaN barrier layer is 14% or greater and 40% or smaller, and a compositional ratio of In in the AlInGaN barrier layer is 0.1% or greater and 5% or smaller.

7. (Previously Presented) The GaN-based compound semiconductor device according to claim 6, wherein a compositional ratio of Al in the AlInGaN barrier layer is between 16% and 40%, and a compositional ratio of In in the AlInGaN barrier layer is between 0.1% and 3%.
8. (Previously Presented) The GaN-based compound semiconductor device according to claim 1, wherein the buffer layer adjacent to the light emitting member is an AlInGaN buffer layer.
9. (Previously Presented) A gallium nitride (GaN)-based compound semiconductor device, comprising:
 - a GaN-based light emitting member; and
 - an AlInGaN buffer layer adjacent to the light emitting member,wherein the light emitting member comprises a multilayer quantum well structure including at least one InGaN well layer and at least one AlInGaN barrier layer, and,
 - wherein a compositional ratio of Al in the AlInGaN buffer layer is 0.5% or greater and 40% or smaller, and a compositional ratio of In in the AlInGaN buffer layer is 0.1% or greater and 5% or smaller.
10. (Previously Presented) The GaN-based compound semiconductor device according to claim 9, wherein a compositional ratio of Al in the AlInGaN buffer layer is between 1% and 40%, and a compositional ratio of In in the AlInGaN buffer layer is between 0.1% and 3%.
11. (Previously Presented) The GaN-based compound semiconductor device according to claim 1, wherein the InGaN well layer and the AlInGaN barrier layer are formed at a temperature of 750° C or greater.
12. (Previously Presented) The GaN-based semiconductor compound semiconductor device according to claim 1, further comprising a strained layer superlattice (SLS) clad layer.
13. (Previously Presented) The GaN-based semiconductor compound semiconductor device according to claim 12, wherein the SLS clad layer is an n-clad layer.

14. (Previously Presented) The GaN-based semiconductor compound semiconductor device according to claim 13, wherein the SLS clad layer comprises alternately layered n-GaN and n-AlGaN.
15. (Previously Presented) The GaN-based semiconductor compound semiconductor device according to claim 13, further comprising a p-type SLS clad layer.
16. (Cancelled)